

PRESCRIBED GRAZING

(MANAGED GRAZING - WISCONSIN)

(acre)
Code 528

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

The controlled harvest of vegetation with grazing or browsing animals, managed with the intent to achieve a specified objective.

II. Purposes

The purposes of this practice are as follows: (a) improving the quality and quantity of forages for the benefit of the producer, livestock, wildlife and environment; (b) protecting water quality; (c) improving and maintaining the health of livestock, plants, and soil; and (d) reducing soil erosion.

III. Conditions Where Practice Applies

This practice may be applied on all lands intended to provide forage or vegetative food for grazing or browsing animals.

IV. Criteria

A. General Criteria. Several general criteria apply to this practice. They are as follows:

1. Extent of forage and herbage removed will be in accordance with production limitations, plant sensitivities and landowners' management goals using the NRCS Field Office Technical Guide Sections I and II.
2. Grazing interval and season of grazing will be based on the rate and physiological conditions of plant growth as described in UWEX publication A3529 - Pastures for Profit: A Guide to Rotational Grazing.
3. Duration and intensity of grazing will be based on desired plant health and expected productivity of key forage species to meet management unit objectives.
4. Vegetative cover will be maintained to minimize soil erosion resulting from wind and water.

5. Application of this practice will manipulate the intensity, frequency, duration, and season of grazing to:
 - a. insure optimum water infiltration;
 - b. maintain or improve riparian and upland area vegetation;
 - c. protect streambanks from erosion;
 - d. manage for deposition of animal wastes away from water bodies; and
 - e. promote stability in wildlife and plant communities consistent with landowners objectives.

Supplemental feeding, out-wintering, and winter feeding shall be consistent with the purposes of this practice.

B. Forage Quality and Quantity Criteria. Forage criteria are as follows

1. Animals shall be managed by grazing intervals and alternating rest periods to maintain forage in a vigorous vegetative state at its optimum nutrient value for animal category. This will be based initially on climatic expectations and adjusted for changing weather patterns.
2. Average stocking rates over the growing season shall not exceed the number needed to utilize the average annual forage production, based on UWEX publication A3529, unless supplemental feeding is provided to meet nutritional deficits.
3. Vegetation shall be controlled in a manner that will minimize noxious weeds and obtain the desired species composition.

C. Water Quality Criteria. Water quality criteria are as follows:

1. Duration, intensity, frequency, season of grazing, and pasture design in or near surface waters shall be designed to protect water quality by:
 - a. managing for deposition of animal wastes away from water bodies;
 - b. promoting uniform nutrient distribution throughout the pasture; and
 - c. minimizing animal impacts to the stability of the streambank.

D. Livestock Health Criteria. Livestock health criteria are as follows.

1. Movement of the animals will be in a manner to improve and maintain animal health and performance, and improve, reduce, or prevent the spread of disease, parasites, and contact with harmful insects or toxic plants.

E. Soil Erosion Criteria. Soil erosion criteria are as follows:

1. Duration, intensity, frequency, season of grazing, and pasture design shall be managed to reduce soil erosion by:
 - a. minimizing soil compaction;
 - b. sustaining vegetative cover; and
 - c. preventing gullies.

V. Considerations

Several considerations apply to this practice. They are as follows:

- A. Testing paddock soil according to UWEX soil publication A2809. Lime and additional fertilizer added should not exceed recommended amounts according to soil test recommendations after manure and legume credits have been taken.
- B. Referencing NRCS Standard 590, Nutrient Management, for mechanically applied manure.
- C. Enhancing pasture sustainability by including multiple species of forages.
- D. Using mechanical means, such as harvesting, clipping, and dragging of pastures to manipulate the pasture sward.

- E. Designing water systems with evaluation of traffic patterns, manure distribution, forage production, and management goals.
- F. Planning lane placement and design to minimize erosion and enhance livestock flow.
- G. Recognizing the needs of other activities using the same land, such as recreational uses.
- H. Contacting local LCD, NRCS, or UWEX offices for information on local grazing networks.
- I. Promoting vegetative cover in riparian areas.
- J. Using management practices to extend the grazing season.

VI. Plans and Specifications

A managed grazing plan will be prepared for all paddocks. Grazing plans will be organized in a manner that is readily understood and useable by the producer in their daily operations. The manner of documentation will depend on the size and complexity of the grazing management unit. Included in the documentation will be the elements needed for achieving the production and environmental goals of the grazing management unit. The plan will be revised, as necessary, to meet management needs. A managed grazing plan shall include the following information:

- A. Overview plan map or maps with the following information. See Figure 1 for conceptual maps.
 1. Property description
 2. Land available for grazing
 3. Field boundaries
 4. Land use identification
 5. Soil and vegetation types
 6. Location of installed conservation practices
 7. Critical areas
 8. Use overlay of other details such as, paddock dimensions, lanes, and watering systems
- B. Estimated number of domestic livestock by kind and class that will be included in the managed grazing operation.
- C. Estimates of expected forage yield.

- D. Identification and description of management measures to address environmental criteria.
- E. Strategies for harvesting forage during periods of excess growth, such as mechanically harvesting and include strategies for periods of forage shortages due to drought or seasonal variations in forage growth.

VII. Operation and Maintenance

- A. Operation.** The producer will apply managed grazing on a continuing basis according to management goals, making adjustments as needed to insure that the objectives of the managed grazing plan are met. Adjustments may include: (a) changing the length of grazing and rest periods; (b) changing paddock sizes; (c) moving watering facilities; and (d) moving access or travel lanes.
- B. Maintenance.** The managed grazing plan will specify when evaluations of the current feed and forage supply should be made. Evaluations may include: (a) determining excess pasture growth and adjusting the managed grazing plan accordingly or applying other harvesting techniques; (b) determining if there is a shortage of pasture growth and adjusting the managed grazing plan accordingly or applying supplemental feeding techniques; and (c) determining if the quality of the pasture stand meets the production goals and adjusting the managed grazing plan accordingly or applying improvement methods such as frost-seeding or inter-seeding.

VIII. Federal, State, and Local Laws

Managed grazing shall comply with all federal, state, and local laws, rules, or regulations governing managed grazing. The producer is responsible for securing required permits. This standard does not contain the text of the federal, state, or local laws governing managed grazing.

IX. References

- Grass Productivity*, Andre Voisin, New York, Philosophical Library, 1959.
- Grazing Management: Science into Practice*, John Hodgson, New York: Longman Scientific and Technical, 1990.
- Grazing Reference Materials Manual, UWEX and UW-Madison, College of Agriculture and Life Sciences, Madison, Wisconsin, UW-Center for Integrated Agricultural Systems, January 1997 (rev.).

Greener Pastures on your Side of the Fence: Better Farming with Voisin Grazing Management, Bill Murphy, Cochester, Vermont: Arriba Publishing, 1978.

Holistic Resource Management, Alan Savory, Washington D.C., Island Press, 1988.

How to Plan, Implement, and Practice Controlled Grazing on Your Place, Bob Kingsbury, Woodinville, Washington, Kingsbury Communications, 1989.

Intensive Grazing Management: Forage, Animals, Men, Profits, Burt Smith, Pingsun Leung, and George Love, Kamuela, Hawaii: The Graziers Hui, 1986.

Pastures for Profit: A Guide to Rotational Grazing, Dan Undersander, Beth Albert, Pamela Porter, Alan Crossley, and Neal Martin, UW-Extension A3529, 1993.

Pastures of Plenty: Financial Performance of Wisconsin Grazing Dairy Farms, Tom Kriegl, Ruth McNair, University of Wisconsin - Madison, 2005.
<http://www.cias.wisc.edu>

Prescribed Grazing Management to Improve Pasture Productivity in New York, Darrell Emmick and Danny Fox, Ithica, New York, USDA-SCS and Cornell University, September 1993.

Soil Test Recommendations for Field, Vegetable, and Fruit Crops, UW-Extension Publication A2809.

USDA, NRCS Wisconsin Field Office Technical Guide (FOTG), Section IV, Practice Standards and Specifications.

1997 Missouri Grazing Manual, Document Number M157, Forage Systems Research Center. University of Missouri-Columbia, Edited by Jim Gerrish and Craig Roberts.

X. Glossary

Forage - Edible parts of plants, other than separated grain, that can provide feed for grazing animals, or that can be harvested for feeding.

Grazing Management Unit - The grazing land area used to support a group of grazing animals for a grazing season. It may be a single area or have a number of subdivisions.

Herbage - The biomass of herbaceous plants, other than the separated grain, generally above the ground but including edible roots and tubers.

Paddock - A grazing area that is a subdivision of a grazing management unit, and is enclosed and separated from other areas by a fence or barrier.

Pasture - A type of grazing management unit enclosed and separated from other areas by fencing or other barriers and devoted to the production of forage for harvest primarily by grazing.

Sward - A population of herbaceous plants, characterized by a relatively short habit of growth and relatively continuous ground cover, including both above and below ground parts.

Vegetation - See herbage.